CHAPTER 5

Results of the Archival Research

This chapter presents the results of the site-file investigation. It identifies the nature, type, and frequency of archaeological resources currently known to exist within the APE. The current study area encompasses the Colorado River channel and floodway in the United States within the 24-mile international boundary segment, extending from Morelos Dam (T8S R24W, Section 28, USGS Yuma East 7.5-minute quadrangle) to the south end of the Southerly International Boundary (T8S R22W, Section 10, USGS Gadsden 7.5-minute quadrangle). The APE for the current undertaking includes the main Colorado River channel as well as the river floodplain to the levee toe on the U.S. side. For purposes of archival research, an area extending beyond the levee, approximately 2.5 miles east of the river, will serve as the study area.

The vast majority of the archival research performed for this overview was conducted at the Bureau of Reclamation, Yuma Area Office. Annual project histories, completed by Reclamation, were reviewed for information on pre- and post-YIP activities in the project area. In addition, contract files were reviewed for information on specific projects that may have affected the project area. Maps were also reviewed for the current project area, ranging from ownership to construction maps. These maps were valuable in tracing the changes wrought upon the landscape of the current project area. The IBWC office in Yuma was also visited for archival materials. Resources obtained there consisted of official IBWC reports as well as aerial photographs. The Imperial County Archaeological Information Center was consulted for information on archaeological research performed in the project area, and relevant reports and site forms were copied. The Bureau of Land Management in Yuma was also consulted for similar information. The Arizona Historical Society in Yuma was visited, and resources reviewed and/or collected there included maps, letters, photographs, oral history transcripts, and newspaper articles.

Site-file searches were conducted during December 1998 and January 1999. Four repositories were visited or contacted in an effort to identify all cultural resources recorded within the proposed APE. Repositories visited for the current study included: Site File Room, Arizona State Museum, Tucson (contact: Sharon Urban); Anthropology Laboratory, Arizona State University, Tempe (contact: Michael Barton); and the Bureau of Land Management, Yuma Area Office, Yuma (contact: Boma Johnson). One additional repository, Southeast Information Center, Imperial Valley College Desert Museum, Ocotillo (contact: Karen Collins), was also contacted by telephone. In addition, SRI contacted two other sources for information on cultural resources located within the APE. These included the Bureau of Indian Affairs, Phoenix (contacts: Garry Cantley and Amy Heuslin), the Bureau of Land Management, Desert District Office, Riverside (contact: Rolla Queen).

Previous Research in the Lower Colorado River Region

Archaeological research in the Southwest has generally focused on cultural groups that exhibited a rich material culture, namely the Anasazi, Mogollon, and Hohokam. One of the founders of the Museum of Northern Arizona, Harold Colton, wrote in 1945 that "upon comparing the archaeology of the valley of

the Colorado River, between Lake Mead and the Gulf of California, to the rest of the Southwest, we are impressed with how little is known" (Colton 1945:114). Because much of the material culture of the groups that inhabited the lower Colorado River valley has been displaced or destroyed by annual flooding, the archaeological allure of the area has been overshadowed by areas that contained groups whose material culture remained rich and well preserved. Colton also observed that the artifacts that remain suggest a strong bond to native lifeways documented during the area's historical period (Colton 1945:116).

The rush to harness the waters of the lower Colorado River exacerbated the difficulties archaeologists faced in investigating the area. The 1908 construction of the Laguna Dam—just 10 miles northeast of Yuma—significantly altered the terrain, topography, and integrity of this portion of the river valley. The dam was constructed during a period when cultural resource management was of little or no concern to those who desired water for the irrigation of prime farmland. It was not until 1935, when the Historic Sites Act was enacted, that the National Park Service (NPS) was granted permission to "make surveys and investigate archaeological and historical sites on lands outside the National Park system" (Stone 1991:41). After World War II, the NPS established the Inter-Agency Archaeological Salvage program, and archaeological research along the Colorado River increased.

Archaeological investigations were conducted on the middle reaches of the Colorado River as early as the 1930s (Baldwin 1943, 1948; Harrington 1937; Schenk 1937; Tuthill 1949; Wright 1954). In contrast, the lower Colorado River was largely ignored—with the exception of work conducted by Malcolm Rogers. During the 1920s, Rogers began recording sites throughout the western deserts of southern California and Arizona. One of the first sites recorded by Rogers in the region was the Tinajas Altas site (AZ X:12:2 [ASM]), located southeast of Yuma at the end of the Camino del Diablo. Apart from the work of Rogers, however, the lower Colorado River valley received no real attention until the NPS sponsored an investigation of the lower Colorado and lower Gila Rivers, conducted by Albert Schroeder. Although Schroeder's coverage of the area was selective and the exact survey areas and extent of coverage are uncertain, he identified 69 sites within the current Yuma District. Schroeder defined three main areas of prehistoric habitation: the Mojave Valley, the Great Valley, and the Yuma Valley (below the Yuma Crossing). Sites in these areas were generally identified as "villages" or "farm camps," and indicated to Schroeder an association with long-term habitation and floodwater farming (Schroeder 1952). Schroeder recorded assemblages of pottery, hammer stones, and grinding tools, as well as trade items, at the sites he identified. Based on his findings, he presented a revised description of lower Colorado Buff ware that was controversial—because he stressed differences in temper and clay composition rather than standard typological elements, as Rogers had done (Waters 1982).

The next large-scale investigation of the lower Colorado River area occurred during the late 1960s and early 1970s, when the University of Nevada, Las Vegas, conducted a reconnaissance survey of discontinuous areas along the river. The main focus of attention was the portion of the Colorado River south of Needles, California, with particular attention directed at two main areas: Parker Dam to the Cibola Valley, and Laguna Dam to the U.S.-Mexico border (Stone 1991:46). The survey identified approximately 200 sites, including lithic and sherd scatters, flaking stations, stone rings, petroglyphs, and historical-period sites. The cursory, unpublished reports are, unfortunately, inadequate for assessing the overall value of the information gathered (McGuire and Schiffer 1982:458).

Enactment of the National Historic Preservation Act in 1966 began an era of mandated identification and management of archaeological resources on all federal lands. The new laws also required the evaluation of cultural resources and, if necessary, the mitigation of adverse impacts to them caused by federally sponsored projects or other undertakings (Stone 1991:46). This legislation marked the beginning of higher-quality data recovery and analytical techniques that have become the standard of current cultural resource management policies and procedures.

The first detailed discussion of cultural resources along the lower Colorado River, south of Laguna Dam, was published in 1986 by Clyde Woods, who conducted research for the Bureau of Land Manage-

ment (BLM) in that area of Pilot Knob designated as the ACEC, or Area of Critical Environmental Concern (Woods 1986). Woods identified almost 100 sites within the area, predominantly geoglyphs and lithic scatters. As an ethnologist, he stressed the cultural significance of dense lithic scatters in close proximity to geoglyphs as indicative of a close link between economic and ceremonial societal functions. He also presented a detailed assessment of Native American concerns relevant to sacred sites in the Southwest, a valuable tool for archaeologists (who often sublimate the importance of modern cultural concerns for the identification of new archaeological resources).

Previous Investigations in the APE

Early archaeological research along the lower Colorado River and adjacent desert areas undertaken by Malcolm Rogers (1929, 1939, 1945, 1958, 1966), Julian Hayden (1976), and Albert H. Schroeder (1952, 1957, 1979) laid out the basic cultural sequences and phases for the area; these still maintain their currency. Their work also defined the material culture associated with each cultural manifestation.

The majority of recent research conducted in the region since the 1970s has been sponsored by governmental agencies in compliance with federal and state cultural resource laws. Funded by the Bureau of Land Management (BLM), McGuire and Schiffer (1982) synthesized data from previous research projects for southwestern Arizona. These cultural syntheses are also applicable to southeastern California. Several systematic cultural overviews of the Colorado River valley and adjacent mountain and desert landscapes have been undertaken in recent years. Sponsored by Reclamation, Swarthout and Drover (1981) evaluated previous research and provided reviews of the environment and culture history along the Colorado River valley from the Grand Wash Cliffs to the international border. Stone (1991) provides a recent BLM-sponsored overview of past research and current research issues along the lower Colorado River. SRI has sponsored two cultural resources overviews for Reclamation since 1992. The first, completed by Stemer (1992), focused on that portion of the lower Colorado River from Yuma north to Laguna Dam. A second overview (Stemer and Bischoff 1998), completed several years later for Reclamation, picked up where this work left off, providing a cultural resources overview that extended from Yuma to the southerly international border. Additionally, a comprehensive research design for the Lower Colorado Region was compiled by SRI for Reclamation (Altschul 1994).

During 1973, Prescott College Archaeological Survey conducted a pedestrian survey of the Colorado River floodplain from Laguna Dam to Morelos Dam, an area of approximately 2,500 square miles. Although concern for the sensitivity of the area within the Yuma Crossing National Historic Landmark was demonstrated, no cultural materials were identified during the project.

Another survey conducted within the current study area was completed by Eileen Green in 1988, for the Bureau of Reclamation (Green 1988). The Yuma Division Channel Modification and Levee Project was designed to create a 300-foot-wide channel for stabilization of the river environment between Laguna Dam and Prison Hill, and to protect agricultural and residential properties in the North Gila Valley. A pedestrian survey of the 8.1-mile-long main channel combined vehicular survey with physical inspection of 13 dredge-spoil locations. Vegetation in the main channel was described as a dense cover of salt cedar and cottonwood, with scattered mesquite, and ground cover consisting of reeds, grasses and flowering annuals. The survey identified no cultural resources.

The proposed widening of State Route 186 in California required an archaeological survey of 1.6 miles along the highway. The survey, conducted in 1988, was performed by archaeologists from the California Department of Transportation (CALTRANS), District 11 (Corum and Laylander 1988). The section of highway to be widened was located approximately 8 miles southeast of Yuma, within the Fort Yuma Indian Reservation, from the international border to the All American Canal. A study corridor

encompassing the width of the proposed right-of-way (100 feet on either side), plus an additional 100 feet on either side, was examined on foot, by means of parallel transects, spaced 10 meters apart. A great deal of the study area was found to be disturbed from grading, parking lots, and other construction activities. The survey found two previously unrecorded sites (CA-IMP-5890H, -5891H), and one artifact isolate (CA-IMP-5892-I). The two sites were not located within the limits of the proposed widening, and were not evaluated for potential eligibility. The isolate was not collected. One previously recorded site (CA-IMP-3431H), supposedly a portion of an historic road, was not relocated.

Reclamation completed a cultural resources survey of Yuma in 1992 (Pfaff et al. 1992).The Yuma Project Historic Cultural Resources Survey, as the project was called, was initiated as a part of a program to identify and inventory cultural resources under the administration of Reclamation. The survey identified ten historic water control and conveyance structures; several large structural features associated with the Yuma Project, Yuma Auxiliary Project, and Gila Gravity Main Canal; a railroad; bridges; and several standing structures located within the current project area. Several of these historic features and structures were recommended as eligible for listing in the NRHP.

In 1992, Reclamation proposed the construction of bankline structures, along with channel work, in an attempt to improve the flood carrying capacity of the lower portion of the Colorado River. One of the first steps in the preparation of an environmental impact statement was a study undertaken to identify areas of cultural sensitivity (ACS) for local Native Americans that might be affected by the project (White 1992).The study was completed through formal and informal Native American consultation, consultation with professionals knowledgeable with the area, documentary research, and preliminary field inspections. A total of nine ACSs was located during the project, three of which are located within the boundaries of the current project. These three areas consist of two habitation sites, and one resource procurement site. Recommendations made by Reclamation regarding these ACSs include additional intensive cultural resource survey, protecting existing stands of willow and cottonwood trees, discontinue quarrying activities and repair damage at Pilot Knob, and providing a Native American monitor during upcoming construction activities.

Another highway widening project was conducted in 1994 for a 20-mile-long segment of U.S. 95 between San Luis and Yuma. The archaeological survey was completed by Jeffrey Hathaway and Bradford Stone, with Archaeological Research Services (ARS), for the Arizona Department of Transportation, Phoenix (Hathaway and Stone 1994).The survey alignment consisted of a 204-foot-wide corridor centered on the 40–60-foot-wide U.S. 95, an area consisting of approximately 443 acres. Approximately 25 percent (ca. 109 acres) was unsurveyable because of crop cultivation/irrigation, and/or private property access considerations. The survey located five previously identified cultural resource sites, consisting of standing structures and historic irrigation features associated with the Yuma Project irrigation system. Only one of these sites are located within the current study area (AZ X:6:39 [ASM}), a canal drain found to be potentially eligible as a contributing element. The survey also located 11 newly recorded sites, one non-site artifact scatter, and nine isolates. Five of the newly recorded sites fall within the current project area (AZ X:5:19–23 [ASM]), all of which date from the historical period. Only site AZ X:5:21 (ASM), the archaeological remains of a commercial structure in the Gadsden area, was recommended as potentially eligible to the NRHP.

The archaeological monitoring of a natural gas line replacement resulted in the locating of several cultural resources. The monitoring was performed by David Doak, an archaeologist with SWCA, Inc., for El Paso Natural Gas Company. The gas line replacement was located within the City of Yuma, close to several historic properties. Artifacts and features recovered consisted primarily of glass bottles, bottle fragments, cut bone, a lens of burned material, and concentrations of building materials. Although several artifacts and features were uncovered, no sites were recorded. Because the artifacts were not found in context, and no architectural features were encountered, it was determined that no significant archaeological resources were observed. No further archaeological work was recommended (Doak 1994).

An environmental assessment for the Quechan Casino at Fort Yuma was completed by TRC Mariah Associates, Inc., in 1995.The assessment, mandated by National Environmental Policy Act, as amended, was completed for a proposed 30,000-square-foot gaming casino and 424-space parking area north of Yuma, within the Quechan Indian Reservation. A Class III pedestrian survey was conducted over the entire project area, and no cultural resources were located. The study found that no significant impacts would result from the proposed action (TRC Mariah Associates, Inc. 1995).

The proposed construction of a multiuse paved pedestrian/bicycle path along the east bank of the East Main Canal in Yuma required an archaeological survey of the area in 1996. The survey was carried out by ARS for the Arizona Department of Transportation, Phoenix (Stone 1996). The area consisted of approximately 51.5 acres along a 5-mile-long corridor and was subjected to a Class III pedestrian survey, with 100 percent coverage of the ground surface. The survey located seven previously recorded historic archaeological sites, two of which are located within the current project area (AZ X:6:17 and AZ X:6:65 [ASM]). The sites are elements of the East Main Canal and are both potentially eligible for the NRHP.

Since 1990, SRI has undertaken a number of Reclamation-funded surveys in and around the lower Colorado River. Included among these are the milling implement quarry at Antelope Hill (Schneider 1992), the Ripley Intaglio Complex (Holmlund 1993), Pilot Knob (Ezzo and Altschul 1993a), Senator Wash (Ezzo and Altschul 1993b), Palo Verde Point (Ezzo and Altschul 1993c), the Quien Sabe/Big Maria Terrace region (Ezzo 1994b), the Lower Cibola Valley (Ezzo 1994a), and Mittry Lake (McClure 1993). Much of this research has been compiled and synthesized in a recent volume by Ezzo and Altschul (1993d).

A Class III, noncollection cultural resources survey was completed in 1995 by SRI for a proposed Reclamation water storage facility along the lower Colorado River (Huber and Ezzo 1995). Four alternative parcels were surveyed for the water storage facility, totaling 2548 acres. The parcels are designated by Reclamation as the All American Canal East Dam and Reservoir, All American Canal West Dam and Reservoir, the Gila Gravity Main Canal Reservoir, and the Yuma Mesa Regulating Reservoir. All of the parcels are located approximately 7–8 miles north of Yuma. The parcels surveyed were outside of the boundaries of the current project. Three sites, however, extend from the current project area into the All American Canal East Dam and Reservoir parcels (CA-IMP-6824H, -6830H, and -7130H). An additional Class III survey, also completed for Reclamation, was conducted adjacent to the Colorado River within the proposed APE (Sterner and Bischoff 1998). This survey identified three historical-period cultural resources AZ U:6:91 (ASM), AZ U:6:92 (ASM), and AZ U:6:93 (ASM).

Results of the Site-File Research

In all, 21 cultural resources were identified within the APE on the Arizona side of the Colorado River. Table 2 summarizes information on site types and potential eligibility for inclusion in the NRHP by site type. Locations of all sites identified within the APE are depicted on Figure 26.

Of those archaeological features identified within the APE, 13 represent significant or contributing components of the Yuma Irrigation Project (see discussion, Chapter 4). Two of these features, the Boundary Pumping Plant (AZ U:5:7 [ASM]) and the East Main Canal (AZ U:5:9/AZ U:6:63 [ASM]) have been determined to be eligible for listing in the National Register of Historic Places based on their historical significance and unique design and construction (Pfaff et al. 1992). Six of the resources have been determined to be contributing elements to the overall significance of the YIP (eligible under criteria a and c) and are therefore eligible for inclusion in the NRHP. Five YIP resources have been determined to lack the individual significance to be considered eligible for listing to the overall NRHP, bit contribute to the overall significance of the YIP (Pfaff et al. 1992).

Table 2. Historical-Period Sites Recorded within the APE

Site Number	Other Site Designation	Topographic Map(s)	Site Type	Significance	Reference
AZ X:5:5 (ASM)	Y90	Gray's Well	Silva Check (West Main Canal)	contributes to eligibility of YIP under Criteria a & c	Pfaff et al. 1992
AZ X:5:6 (ASM)	Y91	Gray's Well	check (West Main Canal)	not eligible	Pfaff et al. 1992
AZ X:5:7 (ASM)	Y42	Gadsden	Boundary Pumping Plant	eligible	Pfaff et al. 1992
AZ X:5:8/ AZ X:6:65(ASM)	Y56	Gadsden, Yuma West	East Main Canal	eligible	Pfaff et al. 1992
AZ X:5:9/ AZ X:6:63(ASM)	Y57	Gadsden, Yuma West	Yuma Main Canal	contributes to eligibility of YIP under Criteria a & c	Pfaff et al. 1992
AZ X:5:10/ AZ X:6:15 (ASM)	Y59	Gadsden, Gray's Well, Yuma West	Valley Levee	contributes to eligibility of YIP under Criteria a & c	Pfaff et al. 1992
AZ X:5:13 (ASM)	Y94	Gadsden	canal check & waste way (West Main Canal)	noncontributory	Pfaff et al. 1992
AZ X:5:14 (ASM)	Y95	Gadsden	check & culvert (East Main Canal)	contributes to eligibility of YIP under Criteria a & c	Pfaff et al. 1992
AZ X:5:17/ AZ X:6:43(ASM)	Y58	Gadsden, Yuma East, Yuma West	Yuma Valley Railroad	contributes to eligibility of YIP under Criteria a & c	Pfaff et al. 1992
AZ X:5:19 (ASM)	—	Gadsden	foundations	not eligible	Hathaway and Stone 1994
AZ X:5:20 (ASM)	—	Gadsden	gas station	not eligible	Hathaway and Stone 1994
AZ X:5:21 (ASM)	—	Gadsden	foundations and walkway	potentially eligible	Hathaway and Stone 1994
AZ X:5:22 (ASM)	—	Gadsden	walkway	not eligible	Hathaway and Stone 1994
AZ X:5:23 (ASM)	—	Gadsden	residence	not eligible	Hathaway and Stone 1994
AZ X:6:35 (ASM)	Y86	Yuma West	Willits Check (West Main Canal)	noncontributory	Pfaff et al. 1992
AZ X:6:36 (ASM)	Y87	Yuma West	wooden bridge (West Main Canal)	noncontributory	Pfaff et al. 1992
AZ X:6:37 (ASM)	Y88	Yuma West	Daniels Check & Bridge (West Main Canal)	noncontributory	Pfaff et al. 1992
AZ X:6:38 (ASM)	Y89	Yuma West	canal check, waste way, turnout, & residence (West Main Canal)	contributes to eligibility of YIP under Criteria a & c	Pfaff et al. 1992
AZ X:6:91 (ASM)	—	Yuma West	artifact scatter	not eligible	Sterner and Bischoff 1998
AZ X:6:92 (ASM)	—	Yuma West	artifact scatter	not eligible	Sterner and Bischoff 1998
AZ X:6:93 (ASM)	—	Yuma West	artifact scatter	not eligible	Sterner and Bischoff 1998

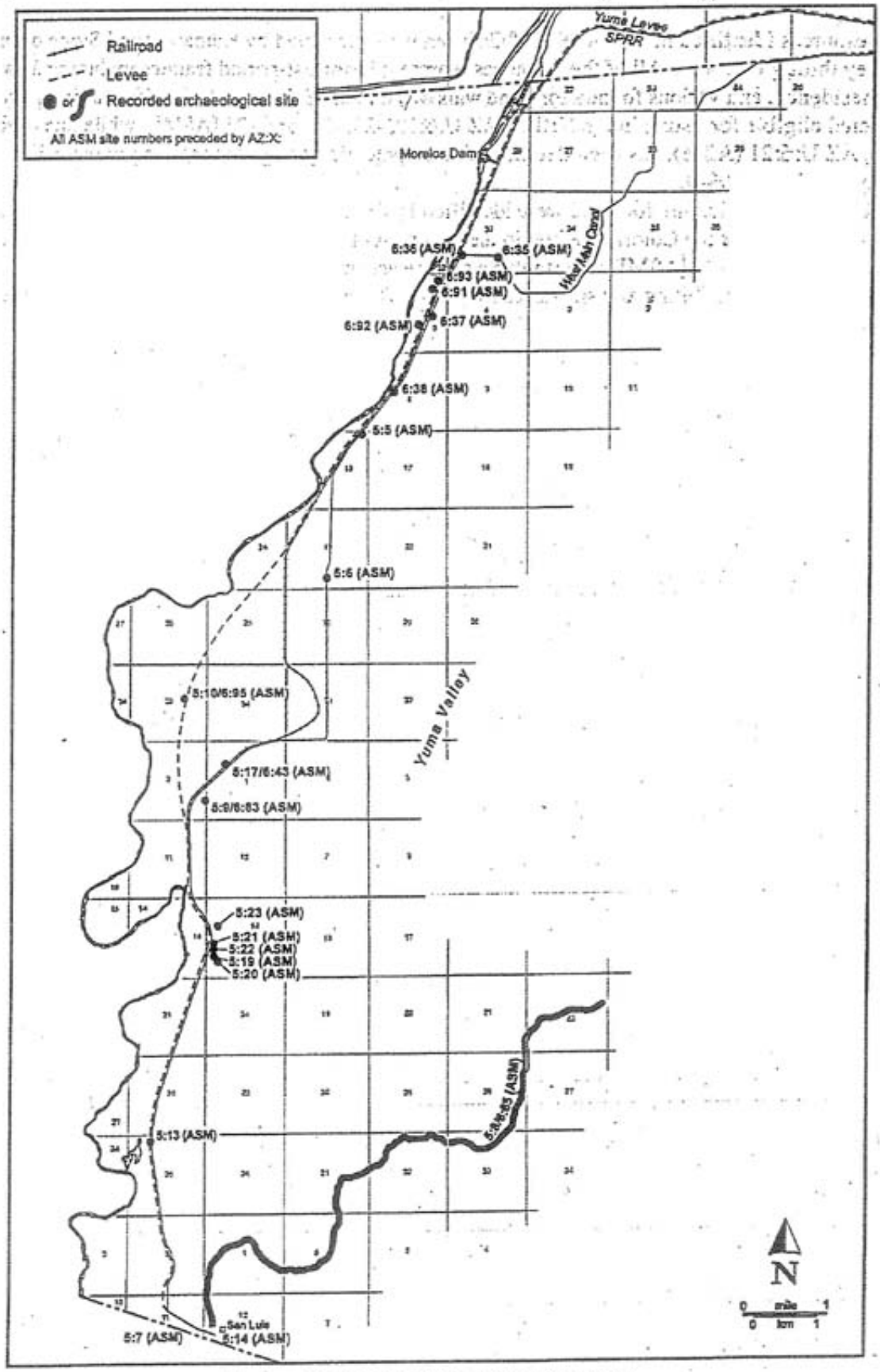

Figure 26. Known sites within the APE.

Five resources identified in the vicinity of Gadsden were identified by Hathaway and Stone during a 1994 survey through the area. All of the resources represent historical-period features including a gas station, a residence, and various foundations and walkways. Four of the sites lack sufficient integrity to be considered eligible for listing in the NRHP (AZ U:6:19, -20, -22, and -23 [ASM]), while one of the resources, AZ U:6:21 (ASM), has been determined to be potentially eligible for listing in the NRHP (Hathaway and Stone 1994).

Finally, three historical-period sites were identified by Sterner during a 1998 survey of 2.15 miles along the eastern side of the Colorado River in the area west of Yuma (Sterner and Bischoff 1998). Each of the sites (AZ U:6:91–93 [ASM]) represented a surface accumulation of historical-period artifacts, with none of the resources exhibiting any subsurface deposits. These sites were determined not eligible for listing in the NRHP.